Bibliography for B1550

N-(biotinoyl)-1,2-dihexadecanoyl-*sn*-glycero-3-phosphoethanolamine, triethylammonium salt (biotin DHPE)

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[Results 1 – 23 of 23]

and catalog numbers (optional)

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Phospholipids

Quick Facts

Storage upon receipt:

- ≤–20° C
- Desiccate
- Protect from light

Ex/Em of Conjugates: See Tables 1 and 2

Introduction

Phospholipids are the primary structural constituents of biological membranes. In addition to this structural role, the importance of phospholipids as mediators in cellular signaling processes has become increasingly apparent. Consequently, research into metabolic processes such as phospholipase action [1,2] and lipid sorting and trafficking [3,4] is rapidly expanding. This expansion is reflected in the range of fluorescent phospholipid analogs offered by Molecular Probes, which includes phospholipids incorporating the intensely fluorescent and photostable BODIPY® fluorophore, and a wide variety of polar head group types.

Most phospholipids are derived from glycerol to which two fatty acyl residues (nonpolar tails) and a single phosphorylalcohol substituent (polar head group) are attached. Head groups represented in Molecular Probes' phospholipid product range are phosphate (phosphatidic acid), as well as phosphate esters of choline, ethanolamine, glycerol and methanol. Fluorescent phospholipid analogs may be conveniently subdivided according to whether the fluorophore is attached to the nonpolar tail (Table 1) or to the polar head group (Table 2).

Table 1. Phospholipids with fluorescently labeled acyl chains.

Fluorophore (Ex/Em) *	Phospholipid
BODIPY (500/510)	• Phosphocholine: D-3793, D-3795
BODIPY FL (503/512)	• Phosphocholine: D-3792, D- 3803, D-3771 • Phosphatidic Acid: D-3805
BODIPY (530/550)	• Phosphoethanolamine: D-3813
BODIPY (581/591)	• Phosphocholine: D-3806
DPH (362/433)	• Phosphocholine: D-476
NBD (460/534)	• Phosphocholine: N-3786, N-3787
Perylene (440/450)	• Phosphocholine: H-3790
Pyrene (342/377)	• Phosphocholine: H-361, H-3818, B-3781, B-3782 • Phosphoethanolamine: H-3784 • Phosphoglycerol: H-3809 • Phosphomethanol: H-3810, O-7703

* Excitation (Ex) and emission (Em) maxima, in nm, are in methanol. The spectra may be different in membranes.

Table 2. Phospholipids with fluorescently labeled head groups.

Label (Ex/Em or Application)*	Catalog Number
Dansyl (336/517)	D-57
Pyrene(340/376)	P-58
Marina Blue® (365/460)	M-12652
NBD (463/536)	N-360
Fluorescein (496/519)	F-362
Oregon Green® 488 (501/526)	O-12650
BODIPY® FI (505/511)	D-3800, D-12656
TMR† (540/566)	T-1391
LRB‡/Rhodamine Red™ (560/580)	L-1392
Texas Red® (582/601)	T-1395
Biotin (<250)	B-1550, B-1616
Maleimide (thiol-reactive)	M-1618

* Spectral maxima in nm are in methanol. The spectra may be different in membranes. † Tetramethylrhodamine. ‡ Lissamine™ rhodamine B maxima, in nm.

Storage and Handling

Fluorescent phospholipid analogs in solid form should be stored frozen at ≤–20°C, desiccated and protected from light. When properly stored, these products are stable for at least one year. The most suitable solvent for preparing stock solutions is generally chloroform. Phosphocholines are usually freely soluble in ethanol up to at least 20 mg/mL. Most other phospholipids (phosphoethanolamines, phosphatidic acids and phosphoglycerols) are less soluble in ethanol, but solutions up to 1–2 mg/mL should be obtainable, using sonication to aid dispersion if necessary. Either chloroform or mixtures of benzene or toluene with small fractional amounts of ethanol are superior solvents in these cases. Information on solubility of natural phospholipids can be found in the CRC Handbook of Lipid Bilayers.[5] Stock solutions of fluorescent phospholipids should be stored in the same way as indicated above for the solid material.

Application

Liposomes are commonly employed as carriers for labeling live cells with fluorescent phospholipids.[6,7] Liposomes may be prepared by a variety of techniques.[8,9] A particularly convenient method involves simply injecting a concentrated ethanolic phospholipid solution into aqueous buffer.[10] To prepare stock solutions of phospholipids that have been dissolved in water-immiscible solvents, a suspension of liposomes can be obtained by evaporating the organic solvent, followed by hydration and sonication.

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Product List *Current prices may be obtained from our Web site or from our Customer Service Department.*

Cat #	Product Name	Unit Size
B-1616	N-((6-(biotinoyl)amino)hexanoyl)-1,2-dihexadecanoyl-*sn*-glycero-3-phosphoethanolamine, triethylammonium salt (biotin-X DHPE)	5 mg
B-1550	N-(biotinoyl)-1,2-dihexadecanoyl-*sn*-glycero-3-phosphoethanolamine, triethylammonium salt (biotin DHPE)	10 mg
B-3781	1,2-bis-(1-pyrenebutanoyl)-*sn*-glycero-3-phosphocholine	1 mg
B-3782	1,2-bis-(1-pyrenedecanoyl)-*sn*-glycero-3-phosphocholine	1 mg
D-3771	2-decanoyl-1-(O-(11-(4,4-difluoro-5,7-dimethyl-4-bora-3a,4a-diaza-s-indacene-3-propionyl)amino)undecyl)-*sn*-glycero-3-phosphocholine	1 mg
D-3792	2-(4,4-difluoro-5,7-dimethyl-4-bora-3a,4a-diaza-s-indacene-3-dodecanoyl)-1-hexadecanoyl-*sn*-glycero-3-phosphocholine (β-BODIPY® FL C_{12}-HPC)	100 µg
D-3805	2-(4,4-difluoro-5,7-dimethyl-4-bora-3a,4a-diaza-s-indacene-3-pentanoyl)-1-hexadecanoyl-*sn*-glycero-3-phosphate, diammonium salt (β-BODIPY® FL C_5-HPA)	100 µg
D-3803	2-(4,4-difluoro-5,7-dimethyl-4-bora-3a,4a-diaza-s-indacene-3-pentanoyl)-1-hexadecanoyl-*sn*-glycero-3-phosphocholine (β-BODIPY® FL C_5-HPC)	100 µg
D-3800	N-(4,4-difluoro-5,7-dimethyl-4-bora-3a,4a-diaza-s-indacene-3-propionyl)-1,2-dihexadecanoyl-*sn*-glycero-3-phosphoethanolamine, triethylammonium salt (BODIPY® FL DHPE)	100 µg
D-12656	N-(4,4-difluoro-5,7-dimethyl-4-bora-3a,4a-diaza-s-indacene-3-propionyl)-1,2-dihexanoyl-*sn*-glycero-3-phosphoethanolamine, triethylammonium salt (BODIPY® FL dicaproyl PE)	100 µg
D-3813	2-(4,4-difluoro-5,7-diphenyl-4-bora-3a,4a-diaza-s-indacene-3-dodecanoyl)-1-hexadecanoyl-*sn*-glycero-3-phosphoethanolamine (β-BODIPY® 530/550 C_{12}-HPE)	100 µg
D-3793	2-(4,4-difluoro-5-methyl-4-bora-3a,4a-diaza-s-indacene-3-dodecanoyl)-1-hexadecanoyl-*sn*-glycero-3-phosphocholine (β-BODIPY® 500/510 C_{12}-HPC)	100 µg
D-3795	2-(4,4-difluoro-5-octyl-4-bora-3a,4a-diaza-s-indacene-3-pentanoyl)-1-hexadecanoyl-*sn*-glycero-3-phosphocholine (β-C_8-BODIPY® 500/510 C_5-HPC)	100 µg
D-3806	2-(4,4-difluoro-5-(4-phenyl-1,3-butadienyl)-4-bora-3a,4a-diaza-s-indacene-3-pentanoyl)-1-hexadecanoyl-*sn*-glycero-3-phosphocholine (β-BODIPY® 581/591 C_5-HPC)	100 µg
D-57	N-(5-dimethylaminonaphthalene-1-sulfonyl)-1,2-dihexadecanoyl-*sn*-glycero-3-phosphoethanolamine, triethylammonium salt (dansyl DHPE)	25 mg
D-476	2-(3-(diphenylhexatrienyl)propanoyl)-1-hexadecanoyl-*sn*-glycero-3-phosphocholine (β-DPH HPC)	1 mg
F-362	N-(fluorescein-5-thiocarbamoyl)-1,2-dihexadecanoyl-*sn*-glycero-3-phosphoethanolamine, triethylammonium salt (fluorescein DHPE)	5 mg
H-3790	1-hexadecanoyl-2-(3-perylenedodecanoyl)-*sn*-glycero-3-phosphocholine	1 mg
H-361	1-hexadecanoyl-2-(1-pyrenedecanoyl)-*sn*-glycero-3-phosphocholine (β-py-C_{10}-HPC)	1 mg
H-3784	1-hexadecanoyl-2-(1-pyrenedecanoyl)-*sn*-glycero-3-phosphoethanolamine (β-py-C_{10}-HPE)	1 mg
H-3809	1-hexadecanoyl-2-(1-pyrenedecanoyl)-*sn*-glycero-3-phosphoglycerol, ammonium salt (β-py-C_{10}-PG)	1 mg
H-3810	1-hexadecanoyl-2-(1-pyrenedecanoyl)-*sn*-glycero-3-phosphomethanol, sodium salt (β-py-C_{10}-HPM)	1 mg
H-3818	1-hexadecanoyl-2-(1-pyrenehexanoyl)-*sn*-glycero-3-phosphocholine (β-py-C_5-HPC)	1 mg
L-1392	Lissamine™ rhodamine B 1,2-dihexadecanoyl-sn-glycero-3-phosphoethanolamine, triethylammonium salt (rhodamine DHPE)	5 mg
M-1618	N-((4-maleimidylmethyl)cyclohexane-1-carbonyl)-1,2-dihexadecanoyl-sn-glycero-3-phosphoethanolamine, triethylammonium salt (MMCC DHPE)	5 mg
M-12652	Marina Blue® 1,2-dihexadecanoyl-*sn*-glycero-3-phosphoethanolamine (Marina Blue® DHPE)	1 mg
N-3787	2-(12-(7-nitrobenz-2-oxa-1,3-diazol-4-yl)amino)dodecanoyl-1-hexadecanoyl-*sn*-glycero-3-phosphocholine (NBD C_{12}-HPC)	5 mg
N-3786	2-(6-(7-nitrobenz-2-oxa-1,3-diazol-4-yl)amino)hexanoyl-1-hexadecanoyl-*sn*-glycero-3-phosphocholine (NBD C_6-HPC)	5 mg
N-360	N-(7-nitrobenz-2-oxa-1,3-diazol-4-yl)-1,2-dihexadecanoyl-*sn*-glycero-3-phosphoethanolamine, triethylammonium salt (NBD-PE)	10 mg
O-7703	1-octacosanyl-2-(1-pyrenehexanoyl)-*sn*-glycero-3-phosphomethanol, ammonium salt (C_{28}-O-PHPM)	250 µg
O-12650	Oregon Green® 488 1,2-dihexadecanoyl-*sn*-glycero-3-phosphoethanolamine (Oregon Green® 488 DHPE)	1 mg
P-58	N-(1-pyrenesulfonyl)-1,2-dihexadecanoyl-*sn*-glycero-3-phosphoethanolamine, triethylammonium salt (pyS DHPE)	25 mg
T-1391	N-(6-tetramethylrhodaminethiocarbamoyl)-1,2-dihexadecanoyl-*sn*-glycero-3-phosphoethanolamine, triethylammonium salt (TRITC DHPE)	1 mg

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L1	3839	S	PHOSPHOETHANOLAMINE
L2	243360	S	GLYCERO?
L3	118	S	DIHEXADECANOYL
L4	1582	S	L1 (L) L2
L5	54	S	L3 (L) L4
L6	0	S	L5 AND APOPTOSIS
L7	0	S	L5 AND LYSOSOME
L8	27		DUP REM L5 (27 DUPLICATES REMOVED)

=> d l8 kwic

L8 ANSWER 1 OF 27 MEDLINE on STN DUPLICATE 1
AB . . . bilayers were formed due to the favorable interaction of vesicles with the hydroxyl-abundant silica surface. Lateral mobility of labeled lipid N-(7-nitrobenz-2-oxa-1,3-diazol-4-yl)-1,2-**dihexadecanoyl**-sn-**glycero**-3-**phosphoethanolamine** was retained in the membranes. A diffusion coefficient of 0.61 +/- 0.22 microm(2)/s was determined from fluorescence recovery after photobleaching. . .

=> d l8 1-27 ti au py so kwic

L8 ANSWER 1 OF 27 MEDLINE on STN DUPLICATE 1
TI Fluid biomembranes supported on nanoporous aerogel/xerogel substrates.
AU Weng Kevin C; Stalgren Johan J R; Duval David J; Risbud Subhash H; Frank Curtis W
PY 2004
SO Langmuir : ACS journal of surfaces and colloids, (2004 Aug 17) 20 (17) 7232-9.
Journal code: 9882736. ISSN: 0743-7463.
AB . . . bilayers were formed due to the favorable interaction of vesicles with the hydroxyl-abundant silica surface. Lateral mobility of labeled lipid N-(7-nitrobenz-2-oxa-1,3-diazol-4-yl)-1,2-**dihexadecanoyl**-sn-**glycero**-3-**phosphoethanolamine** was retained in the membranes. A diffusion coefficient of 0.61 +/- 0.22 microm(2)/s was determined from fluorescence recovery after photobleaching. . .

L8 ANSWER 2 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN
TI Planar bilayer lipid membranes supported on mesoporous aerogels, xerogels, and Vycor glass: an epifluorescence microscopy study
AU Weng, Kevin C.; Stalgren, Johan J. R.; Risbud, Subhash H.; Frank, Curtis W.
PY 2004
SO Journal of Non-Crystalline Solids (2004), 350, 46-53
CODEN: JNCSBJ; ISSN: 0022-3093
AB . . . on various mesoporous materials. Planar phospholipid bilayers consisting of 97 mol% L-α-phosphatidylcholine (egg PC) and 3 mol% fluorescently labeled lipid N-(7-nitrobenz-2-oxa-1,3-diazol-4-yl)-1,2-**dihexadecanoyl**-sn -**glycero**-3-**phosphoethanolamine** (NBD-PE) were formed by fusion of .apprx.30 nm diameter unilamellar vesicles on four different silica-based substrates: aerogels, xerogels, Vycor glass,. . .
IT 7631-86-9, Silica, biological studies 28319-77-9, L-α-Phosphatidylcholine 99684-86-3, N-(7-Nitrobenz-2-oxa-1,3-diazol-4-yl)-1,2-**dihexadecanoyl**-sn-**glycero**-3-**phosphoethanolamine**
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(planar bilayer lipid membranes supported on mesoporous aerogels, xerogels, and Vycor glass as studied by epifluorescence microscopy)

L8 ANSWER 3 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN
TI Phase separation in supported phospholipid bilayers visualized by near-field scanning optical microscopy in aqueous solution
AU Ianoul, A.; Burgos, P.; Lu, Z.; Taylor, R. S.; Johnston, L. J.
PY 2003
SO Langmuir (2003), 19(22), 9246-9254
CODEN: LANGD5; ISSN: 0743-7463
AB . . . dipalmitoyl-phosphatidylcholine/dilauroyl-phosphatidylcholine (DPPC/DLPC) mixture in one or both leaflets were imaged by both atomic force microscopy and NSOM. The addition of **dihexadecanoyl**-sn-**glycero**-3-**phosphoethanolamine**-Texas Red (DHPE-TR) was used to visualize fluid and gel phases for the NSOM fluorescence measurements. Hybrid bilayers with 7:3 DLPC/DPPC. . .

L8 ANSWER 4 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN
TI How to determine diffusion coefficients in planar phospholipid systems by

confocal fluorescence correlation spectroscopy
AU Benda, A.; Benes, M.; Marecek, V.; Lhotsky, A.; Hermens, W. Th.; Hof, M.
PY 2003
SO Langmuir (2003), 19(10), 4120-4126
CODEN: LANGD5; ISSN: 0743-7463
AB . . . along the vertical (z-) axis. Expts. on supported phospholipid bilayers composed of dioleoylphosphatidylcholine (DOPC) and small amts. of Rhodamine Red-X 1,2-**dihexadecanoyl**-sn-**glycero**-3-**phosphoethanolamine**, triethylammonium salt (Rhodamine Red-X DHPE) adsorbed onto atomically flat mica and borosilicate glass demonstrate that results obtained by the Z-scan. . .

L8 ANSWER 5 OF 27 MEDLINE on STN DUPLICATE 2
TI Comparison of reagents for shape analysis of fixed cells by automated fluorescence microscopy.
AU Elliott John T; Tona Alessandro; Plant Anne L
PY 2003
SO Cytometry A, (2003 Apr) 52 (2) 90-100.
Journal code: 101235694. ISSN: 1552-4922.
AB . . . chemically reactive and one lipophilic) fluorescent molecules--5-chloromethyl fluorescein diacetate (CMFDA, CellTracker green), fluorescein-5-maleimide, fluorescein-5-isothiocyanate (FITC), 5-iodoacetamidofluorescein, 5(6)-carboxy fluorescein-N-hydroxysuccinimidyl ester, and N-fluorescein-1,2-**dihexadecanoyl**-sn-**glycerol** -3-**phosphoethanolamine**--for their effectiveness as stains for automated morphology analysis of fixed cells. RESULTS: Formaldehyde-fixed rat aortic smooth muscle cells stained with. . .

L8 ANSWER 6 OF 27 MEDLINE on STN DUPLICATE 3
TI Fluorescence anisotropy measurements of lipid order in plasma membranes and lipid rafts from RBL-2H3 mast cells.
AU Gidwani A; Holowka D; Baird B
PY 2001
SO Biochemistry, (2001 Oct 16) 40 (41) 12422-9.
Journal code: 0370623. ISSN: 0006-2960.
AB . . . important for their function. To quantify ordered lipids in biological membranes, we investigated steady-state fluorescence anisotropy of two lipid probes, 2-[3-(diphenylhexatrienyl)propanoyl]-1-hexadecanoyl-sn-**glycero**-3-phosphocholine (DPH-PC) and N-(7-nitrobenz-2-oxa-1,3-diazol-4-yl)-1,2-**dihexadecanoyl**-sn-**glycero**-3-**phosphoethanolamine** (NBD-PE). We show using model membranes with varying amounts of cholesterol that steady-state fluorescence anisotropy is a sensitive measure of. . .

L8 ANSWER 7 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN
TI Single molecule fluorescence imaging of phospholipid monolayers at the air-water interface
AU Ke, Pu Chun; Naumann, Christoph A.
PY 2001
SO Langmuir (2001), 17(12), 3727-3733
CODEN: LANGD5; ISSN: 0743-7463
AB . . . on phospholipid monolayers at the air-water interface. The technique is used to track the lateral diffusion of single mols. of N-(6-tetramethylrhodaminethiocarbamoyl)-1,2-**dihexadecanoyl**-sn-**glycero**-3-**phosphoethanolamine**, triethylammonium salt (TRITC-DHPE), in phospholipid monolayers of 1,2-dimyristoyl-sn-**glycero**-3-phosphocholine (DMPC) and 1,2-dimyristoyl-sn-**glycero**-3-[phospho-rac-(1-**glycerol**)] (sodium salt) (DMPG) at different areas per phospholipid mol. Our tracking data of the averaged mean-square displacement indicate for both. . .

L8 ANSWER 8 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN
TI Probing single molecule orientations in model lipid membranes with near-field scanning optical microscopy
AU Hollars, Christopher W.; Dunn, Robert C.
PY 2000
SO Journal of Chemical Physics (2000), 112(18), 7822-7830
CODEN: JCPSA6; ISSN: 0021-9606

AB . . . the mol. level structure in Langmuir-Blodgett monolayers of L-α-dipalmitoylphosphatidylcholine (DPPC). Monolayers incorporating 3+10-4 mol % of the fluorescent lipid analog N-(6-tetramethylrhodaminethiocarbamoyl)-1,2-**dihexadecanoyl**-sn-**glycero**-3-**phosphoethanolamine**, triethylammonium salt (TRITC-DHPE) are transferred onto a freshly cleaved mica surface at low (π=8 mN/m) and high (π=30 mN/m) surface. . .

L8 ANSWER 9 OF 27 MEDLINE on STN DUPLICATE 4
TI Specific adhesion of vesicles monitored by scanning force microscopy and quartz crystal microbalance.
AU Pignataro B; Steinem C; Galla H J; Fuchs H; Janshoff A
PY 2000
SO Biophysical journal, (2000 Jan) 78 (1) 487-98.
Journal code: 0370626. ISSN: 0006-3495.
AB . . . techniques, scanning force microscopy (SFM) and quartz crystal microbalance (QCM) were used to study adhesion of liposomes consisting of 1, 2-dipalmitoyl-sn-**glycero**-3-phosphocholine and varying concentrations of N-((6-biotinoyl)amino)hexanoyl)-1, 2-**dihexadecanoyl**-sn-**glycero**-3-**phosphoethanolamine** (biotin-X-DHPE). Monitoring the adhesion of the receptor-doped vesicles to avidin-coated gold surfaces by QCM (f(0) = 5 MHz) revealed an. . .
CN 0 (Aluminum Silicates); 0 (Liposomes); 0 (N-(((6-biotinoyl)amino)hexanoyl)-1,2-**dihexadecanoyl**-sn-**glycero**-3-**phosphoethanolamine**); 0 (Phosphatidylethanolamines)

L8 ANSWER 10 OF 27 MEDLINE on STN DUPLICATE 5
TI A correlation between lipid domain shape and binary phospholipid mixture composition in free standing bilayers: A two-photon fluorescence microscopy study.
AU Bagatolli L A; Gratton E
PY 2000
SO Biophysical journal, (2000 Jul) 79 (1) 434-47.
Journal code: 0370626. ISSN: 0006-3495.
AB . . . capability of the two-photon excitation fluorescence microscope and the partition and spectral properties of 6-dodecanoyl-2-dimethylamino-naphthalene (Laurdan) and Lissamine rhodamine B 1,2-**dihexadecanoyl**-sn-**glycero**-3-**phosphoethanolamine** (N-Rh-DPPE). We analyzed and compared fluorescence images of GUVs composed of 1,2-dilauroyl-sn-**glycero**-3-phosphocholine/1, 2-dipalmitoyl-sn-**glycero**-3-phosphocholine (DLPC/DPPC), 1, 2-dilauroyl-sn-**glycero**-3-phosphocholine/1, 2-distearoyl-sn-**glycero**-3-phosphocholine (DLPC/DSPC), 1, 2-dilauroyl-sn-**glycero**-3-phosphocholine/1, 2-diarachidoyl-sn-**glycero**-3-phosphocholine (DLPC/DAPC), 1, 2-dimyristoyl-sn-**glycero**-3-phosphocholine/1, 2-distearoyl-sn-**glycero**-3-phosphocholine (DMPC/DSPC) (1:1 mol/mol in all cases), and 1,2-dimyristoyl-sn-**glycero**-3-**phosphoethanolamine**/1, 2-dimyristoyl-sn-**glycero**-3-phosphocholine (DMPE/DMPC) (7:3 mol/mol) at temperatures corresponding to the fluid phase and the fluid-solid phase coexistence. In addition, we studied the. . .

L8 ANSWER 11 OF 27 MEDLINE on STN DUPLICATE 6
TI Two photon fluorescence microscopy of coexisting lipid domains in giant unilamellar vesicles of binary phospholipid mixtures.
AU Bagatolli L A; Gratton E
PY 2000
SO Biophysical journal, (2000 Jan) 78 (1) 290-305.
Journal code: 0370626. ISSN: 0006-3495.
AB Images of giant unilamellar vesicles (GUVs) formed by different phospholipid mixtures (1,2-dipalmitoyl-sn-**glycero**-3-phosphocholine/1, 2-dilauroyl-sn-**glycero**-3-phosphocholine (DPPC/DLPC) 1:1 (mol/mol), and 1,2-dipalmitoyl-sn-**glycero**-3-**phosphoethanolamine**/1, 2-dipalmitoyl-sn-**glycero**-3-phosphocholine (DPPE/DPPC), 7:3 and 3:7 (mol/mol) at different temperatures were obtained by exploiting the sectioning capability of a two-photon excitation fluorescence microscope. 6-Dodecanoyl-2-dimethylamino-naphthalene (LAURDAN), 6-propionyl-2-dimethylamino-

naphthalene (PRODAN), and Lissamine rhodamine B 1,2-**dihexadecanoyl**
-sn-**glycero**-3-**phosphoethanolamine** (N-Rh-DPPE) were
used as fluorescent probes to reveal domain coexistence in the GUVs. We
report the first characterization of the. . .

L8 ANSWER 12 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN
TI Micromanipulation of tubular vesicles
AU Xu, Liyu; Dobereiner, Hans-Gunther
PY 2000
SO Perspectives in Supramolecular Chemistry (2000), 6(Giant Vesicles), 181-184
CODEN: PSCHFN; ISSN: 1521-1525
AB . . . as a tool to measure membrane material parameters under
controlled application of forces to vesicles. Response of tubular
vesicles of 1,2-dioleoyl-sn-**glycero**-3-phosphocholine and
N-((6-(biotinoyl)amino)hexanoyl)-1,2-dihexanoyl-1,2-**dihexadecanoyl**
-sn-**glycero**-3-**phosphoethanolamine** (99:1) to pulling
and pushing forces on their poles are presented.

L8 ANSWER 13 OF 27 MEDLINE on STN DUPLICATE 7
TI Alpha-crystallin/lens lipid interactions using resonance energy transfer.
AU Tang D; Borchman D; Yappert M C
PY 1999
SO Ophthalmic research, (1999) 31 (6) 452-62.
Journal code: 0267442. ISSN: 0030-3747.
AB . . . were confirmed. In this study, the tryptophan of
alpha-crystallin was used as the energy donor, and the fluorescence probe
N-(5-dimethylaminonaphthalene-1-sulfonyl)-1, 2-**dihexadecanoyl**
-sn-**glycero**-3-**phosphoethanolamine** triethylammonium
salt (dansyl DHPE) was chosen as the energy acceptor. Lens cortex lipid
vesicles were preincorporated with dansyl DHPE. Energy. . .

L8 ANSWER 14 OF 27 MEDLINE on STN DUPLICATE 8
TI The membrane-permeabilizing effect of avenacin A-1 involves the
reorganization of bilayer cholesterol.
AU Armah C N; Mackie A R; Roy C; Price K; Osbourn A E; Bowyer P; Ladha S
PY 1999
SO Biophysical journal, (1999 Jan) 76 (1 Pt 1) 281-90.
Journal code: 0370626. ISSN: 0006-3495.
AB . . . bilayers revealed that avenacin A-1 caused a small but
significant reduction in the lateral diffusion of the phospholipid probe
N-(7-nitrobenzoyl-2-oxa-1,3-diazol-4-yl)-1, 2-**dihexadecanoyl**-sn-
glycero-3-**phosphoethanolamine** (NBD-PE). Similarly, with
the sterol probe (22-(N-(7-nitrobenz-2-oxa-1, 3-diazol-4-yl)amino)-23,24-
bisnor-5-cholen-3beta-ol (NBD-Chol), avenacin A-1, but not its
derivatives, caused a more pronounced reduction. . .

L8 ANSWER 15 OF 27 MEDLINE on STN DUPLICATE 9
TI Temperature induced structural changes of beta-crystallin and
sphingomyelin binding.
AU Tang D; Borchman D
PY 1998
SO Experimental eye research, (1998 Jul) 67 (1) 113-8.
Journal code: 0370707. ISSN: 0014-4835.
AB . . . potentially important for understanding the function of
alpha-crystallin in the ocular lens and the formation of cataracts. Using
fluorescence probes, N-(7-nitrobenz-2-oxa-1,3-diazol-4-yl)-1,2-
dihexadecanoyl-sn-**glycero**-3 -**phosphoethanolamine**
, triethylammonium salt (NBD-PE) and (1,1'-bi(4-anilino)naphthalene-5,5'-
disulfonic acid, dipotassium salt (bis-ANS), the temperature dependence of
the binding of alpha-crystallin to sphingomyelin liposomes,. . .

L8 ANSWER 16 OF 27 MEDLINE on STN DUPLICATE 10
TI The effects of ethylene oxide containing lipopolymers and tri-block
copolymers on lipid bilayers of dipalmitoylphosphatidylcholine.
AU Baekmark T R; Pedersen S; Jorgensen K; Mouritsen O G
PY 1997
SO Biophysical journal, (1997 Sep) 73 (3) 1479-91.

Journal code: 0370626. ISSN: 0006-3495.

AB A comparative study is conducted on the influence of two types of polymeric compounds on the phase behavior of 1,2-**dihexadecanoyl**-s,n-**glycero**-3-phosphotidylcholine (DC16PC) lipid bilayers. The first polymeric compound is a lipopolymer, with two different lengths of a hydrophilic polyethylene oxide moity, anchored to the bilayer by a 1,2-dioctadecanoyl-s,n-**glycero**-3-**phosphoethanolamine** (DC18PE) lipid. The second type, which is a novel type of membrane-spanning object, is an amphiphilic tri-block copolymer composed of. . .

L8 ANSWER 17 OF 27 MEDLINE on STN

TI Single-molecule microscopy on model membranes reveals anomalous diffusion.

AU Schutz G J; Schindler H; Schmidt T

PY 1997

SO Biophysical journal, (1997 Aug) 73 (2) 1073-80.
Journal code: 0370626. ISSN: 0006-3495.

CN 0 (Fluorescent Dyes); 0 (Lipid Bilayers); 0 (Liposomes); 0 (Phosphatidylcholines); 0 (Phosphatidylethanolamines); 0 (Rhodamines); 0 (triethylammonium N-(6-tetramethylrhodaminethiocarbamoyl)-1,2-**dihexadecanoyl**-sn-**glycero**-3-**phosphoethanolamine**)

L8 ANSWER 18 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN

TI Surface Pressure Dependent Fluorescence Resonance Energy Transfer in Mixed Monolayers of Amphiphilic Coumarin and Texas Red at the Air-Water Interface

AU Dutta, A. K.; Lavoie, H.; Ohta, K.; Salesse, C.

PY 1997

SO Langmuir (1997), 13(4), 801-807
CODEN: LANGD5; ISSN: 0743-7463

AB This paper reports the spectroscopic characteristics of pure N-(Texas Red sulfonyl)-1,2-**dihexadecanoyl**-sn-**glycero**-3-**phosphoethanolamine** triethylammonium salt (TR) and 3-(2-benzothiaxolyl)-4-cyano-7-(octadecyloxy)coumarin (BCOC) at the air-water interface. Absorption and steady state fluorescence studies of these dyes atomic . .

L8 ANSWER 19 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN

TI Scanning probe microscopy studies of aggregation in Langmuir-Blodgett films

AU Ivanov, George R.; Petkova, Juliana I.; Okabe, Yoh; Aoki, Daisuke; Takano, Hajime; Kawate, Hirosuke; Fujihira, Masamichi

PY 1997

SO Supramolecular Science (1997), 4(3-4), 549-557
CODEN: SUSCFX; ISSN: 0968-5677

IT 178119-00-1, N-(7-Nitrobenz-2-oxa-1,3,diazol-4-yl)-1,2-**dihexadecanoyl**-sn-**glycero**-3-**phosphoethanolamine** triethylammonium salt
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(scanning probe microscopy studies of aggregation in Langmuir-Blodgett films of dipalmitoylphosphatidylethanolamine)

L8 ANSWER 20 OF 27 MEDLINE on STN DUPLICATE 11

TI The effect of lipid molecular packing stress on cationic liposome-induced rabbit erythrocyte fusion.

AU Li L H; Hui S W

PY 1997

SO Biochimica et biophysica acta, (1997 Jan 14) 1323 (1) 105-16.
Journal code: 0217513. ISSN: 0006-3002.

AB . . . the efficiency of cationic liposome-induced fusion between rabbit erythrocytes was studied. Multilamellar cationic liposomes containing 1,2-dioleoyl-3-trimethylammoniumpropane (DOTAP) and different PEs (1,2-dilnoleoyl-sn-**glycero**-3-**phosphoethanolamine** (dilin-PE), 1,2-dioleoyl-sn-**glycero**-3-**phosphoethanolamine** (DOPE), 1-palmitoyl-2-oleoyl-sn-**glycero**-3-**phosphoethanolamine** (POPE), and

lysophosphatidylethanolamine, egg (lyso-PE)) were used to induce cell-cell fusion. It was found that high cell-cell fusion yield (FY). . . Furthermore, cationic liposome induced cell lysis, and fusion between cationic liposomes and cells, as assayed by the N-(lissamine rhodamine B sulfonyl)-1,2-**dihexadecanoyl**-sn-**glycero**-3-**phosphoethanolamine**, triethylammonium salt and N-(7-nitrobenz-2-oxa-1,3-diazol-4-yl)-1,2- **dihexadecanoyl**-sn-**glycero**-3-**phosphoethanolamine**, triethylammonium salt (Rh-PE/NBD-PE) energy transfer method, followed the same order as that for cell-cell fusion. Fusion between the negatively charged. . .

L8 ANSWER 21 OF 27 MEDLINE on STN DUPLICATE 12
TI Inhibition of phospholipase C-delta 1 catalytic activity by sphingomyelin.
AU Scarlata S; Gupta R; Garcia P; Keach H; Shah S; Kasireddy C R; Bittman R; Rebecchi M J
PY 1996
SO Biochemistry, (1996 Nov 26) 35 (47) 14882-8.
Journal code: 0370623. ISSN: 0006-2960.
AB . . . Increasing the mole fraction of SPM altered the fluorescence emission spectra of two sets of head group probes, 6-lauronyl(N,N-dimethylamino)naphthalene and N-[5-(dimethylamino)naphthalene-1-sulfonyl]-1,2-**dihexadecanoyl**-sn- **glycero**-3-**phosphoethanolamine**, that are sensitive to water content at the membrane/solution interface. Results obtained with both probes suggested a reduction in hydration. . .

L8 ANSWER 22 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN
TI Elaboration and Characterization of Phospholipid Langmuir-Blodgett Films
AU Solletti, J. M.; Botreau, M.; Sommer, F.; Brunat, W. L.; Kasas, S.; Duc, Tran Minh; Celio, M. R.
PY 1996
SO Langmuir (1996), 12(22), 5379-5386
CODEN: LANGD5; ISSN: 0743-7463
AB To model biol. membranes, DPPE (1,2-**dihexadecanoyl**-sn-**glycero**-3-**phosphoethanolamine**) and DPPC (1,2-**dihexadecanoyl**-sn-**glycero**-3-phosphocholine) Langmuir-Blodgett (LB) films were deposited on hydrophilic mica and hydrophobic highly ordered pyrolytic graphite (HOPG), and subsequently characterized by atomic. . .

L8 ANSWER 23 OF 27 MEDLINE on STN DUPLICATE 13
TI Lateral diffusion in planar lipid bilayers: a fluorescence recovery after photobleaching investigation of its modulation by lipid composition, cholesterol, or alamethicin content and divalent cations.
AU Ladha S; Mackie A R; Harvey L J; Clark D C; Lea E J; Brullemans M; Duclohier H
PY 1996
SO Biophysical journal, (1996 Sep) 71 (3) 1364-73.
Journal code: 0370626. ISSN: 0006-3495.
AB . . . fluorescence recovery after photobleaching recovery curves to be recorded from stable virtually solvent-free bilayers. D, the lateral diffusion coefficient of N-(7-nitrobenzoyl-2-oxa-1,3-diazol-4-yl)-1,2-**dihexadecanoyl**-sn- **glycero**-3-**phosphoethanolamine**, was found to be relatively insensitive to the phospholipid composition (headgroup, chain unsaturation, etc.), whereas inclusion of 33-50% cholesterol in. . .

L8 ANSWER 24 OF 27 MEDLINE on STN DUPLICATE 14
TI Indirect evidence for lipid-domain formation in the transition region of phospholipid bilayers by two-probe fluorescence energy transfer.
AU Pedersen S; Jorgensen K; Baekmark T R; Mouritsen O G
PY 1996
SO Biophysical journal, (1996 Aug) 71 (2) 554-60.
Journal code: 0370626. ISSN: 0006-3495.
AB The fluorescence energy transfer between two lipid probes, N-(7-nitrobenz-2-oxa-1,3-diazol-4-yl)-1, 2-**dihexadecanoyl**-sn-**glycero**-3-**phosphoethanolamine** (donor) and N-(Lissamine rhodamine B sulfonyl)-1, 2-**dihexadecanoyl**-sn-**glycero**

-3-**phosphoethanolamine** (acceptor), incorporated into 1,2-**dihexadecanoyl**-sn-**glycero**-3-phosphocholine unilamellar and multilamellar lipid bilayers, is studied in the temperature region of the main phase transition. The two probes display. . .

L8 ANSWER 25 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 15
TI Dispersion state of phospholipids and fluorescence production with peroxidation in organic solvents: investigated by time-resolved fluorescence technique
AU Wang, Jin-Ye; Suzuki, Ken-ichiro; Fujisawa, Tetsuro; Ueki, Tatzuo; Kouyama, Tsutomu
PY 1995
SO Biochimica et Biophysica Acta (1995), 1236(2), 228-36
CODEN: BBACAQ; ISSN: 0006-3002
AB . . . hexane was calculated to be 4-6 nm, which was dependent on the lipid composition A consistent result was obtained when N-(7-nitrobenz-2-oxa-1,3-diazol-4-yl)-1,2-**dihexadecanoyl**-sn-**glycero** -3-**phosphoethanolamine** (NBD-PE) was used as an extrinsic probe. Comparison of the fluorescence data with small-angle X-ray scattering (SAXS) data suggested that. . .

L8 ANSWER 26 OF 27 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI Characterization of phospholipid Langmuir-Blodgett films and proteins by AFM, XPS and ToF-SSIMS.
AU Solletti, J. M. [Reprint author]; Botreau, M.; Sommer, F.; Brunat, W. L.; Duc, Tran Minh; Celio, M. R. [Reprint author]
PY 1995
SO Experientia (Basel), (1995) Vol. 51, No. ABSTR., pp. A49.
Meeting Info.: 27th Annual Meeting of the Swiss Societies for Experimental Biology (USGEB/USSBE). Fribourg, Switzerland. March 30-31, 1995.
CODEN: EXPEAM. ISSN: 0014-4754.
IT Miscellaneous Descriptors
ATOMIC FORCE MICROSCOPY; CALCIUM-ATPASE; CALMODULIN; MEETING ABSTRACT; 1,2-**DIHEXADECANOYL**-SN-**GLYCERO**-3-PHOSPHOCHOLINE; 1,2-**DIHEXADECANOYL**-SN-**GLYCERO**-3-**PHOSPHOETHANOLAMINE**

L8 ANSWER 27 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN
TI Spectrofluorimetric Hydrodynamic Voltammetry: Investigation of Reactions at Solid/Liquid Interfaces
AU Compton, Richard G.; Winkler, Jacob; Riley, D. Jason; Bearpark, Stephen D.
PY 1994
SO Journal of Physical Chemistry (1994), 98(27), 6818-25
CODEN: JPCHAX; ISSN: 0022-3654
AB . . . the rate of migration of the cationic species H+ and K+ within a thin organic film containing the fluorescent probe N-(5-fluoresceinthiocarbamoyl)-1,2-**dihexadecanoyl**-sn-**glycero**-3-**phosphoethanolamine** (F362) as the triethylammonium salt dispersed in a large excess of 1-trimethylammonium 2,3-di [C14-C18 acyloxy]propane chloride (HEQCl) may be followed. . .